



DEWETRON GmbH

Parking 4
8074 Grambach
Austria



AAT2540130
Akkreditierung Austria 0632
18.02.2025

Kalibrierstelle für elektrische Messgrößen
Calibration body for electrical measurands

akkreditiert durch / accredited by
AKKREDITIERUNG AUSTRIA

Kalibrierzeichen
Calibration Mark

Kalibrierschein nach ISO/IEC 17025
Calibration certificate according to ISO/IEC 17025

Gegenstand <i>Object</i>	Data Acquisition System	Dieser Kalibrierschein dokumentiert die Rückführbarkeit auf nationale Normale zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).
Hersteller <i>Manufacturer</i>	DEWETRON	
Typ <i>Type</i>	DEWE-1201	Akkreditierung Austria ist Unterzeichner der multilateralen Übereinkommen der European Co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine.
Herstellernummer <i>Serial number</i>	44110165	
Auftraggeber <i>Customer</i>		<i>This calibration certificate documents the traceability to national standards, which realize the physical units of measurements according to the International system of Units (SI).</i>
Kalibriernummer <i>Order number</i>	AAT2540130	
Anzahl der Seiten des Kalibrierscheines <i>Number of pages of the certificate</i>	12	<i>Akkreditierung Austria is a signatory to the multilateral agreements of the European Co-operation for Accreditation (EA) and of the International Laboratory Accreditation Cooperation (ILAC) for the mutual recognition of calibration certificates.</i>
Datum der Kalibrierung <i>Date of calibration</i>	18.02.2025	

Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Auszüge oder Änderungen sind unzulässig. Kalibrierscheine ohne Unterschrift und Stempel haben keine Gültigkeit.

This calibration certificate may not be reproduced other than in full. Calibration certificates without signature and seal are not valid.

Stempel <i>Seal</i>	Datum <i>Date</i>	Zeichnungsberechtigter <i>Authorised person</i>	Bearbeiter <i>Person responsible</i>
	18.02.2025	Stefan Strohmaier	Nandor Nagy

1. Kalibriergegenstand / Calibration object

Data Acquisition System DEWETRON DEWE-1201, S/N: 44110165

2. Kalibrierverfahren / Calibration procedure

Die Kalibrierung erfolgt durch Vergleich der durch die Kalibrierstelle / Normale dargestellten Werte mit den Ausgangsgrößen am Kalibriergegenstand beziehungsweise den am Kalibriergegenstand angezeigten Werten.
The calibration is made by comparing the readings from the laboratory / standards to the output of the calibration object respectively the values displayed on the calibration object.

Prüfroutine / *Calibration procedure*: DEWE-SYSTEM-16-BRIDGE_Akkred, Rev. 2.00

3. Messergebnisse / Measurement results

Die Kalibrierung im Rahmen der Akkreditierung umfasst die Messgrößen Gleichspannung, Wechselspannung, Gleichstrom, Wechselstrom und Gleichstromwiderstand.

Die Messergebnisse beziehen sich ausschließlich auf diesen Kalibriergegenstand zum Zeitpunkt der Kalibrierung.
The calibration scope of the accreditation contains the quantities direct voltage, alternating voltage, direct current, alternating current and direct current resistance.

The measurement results are exclusively linked to this calibration object at the time of calibration.

4. Messunsicherheit / Measurement uncertainty

Angegeben ist die erweiterte Messunsicherheit, die sich aus der Standardmessunsicherheit durch Multiplikation mit dem Erweiterungsfaktor $k=2$ ergibt. Sie wurde gemäß EA-4/02 ermittelt. Der Wert der Messgröße liegt im Regelfall mit einer Wahrscheinlichkeit von annähernd 95% im zugeordneten Werteintervall.

Ein Anteil für die Langzeitstabilität des Kalibriergegenstandes ist nicht enthalten.

The stated extended measurement uncertainty is derived from the standard uncertainty of measurement multiplied by the coverage factor $k=2$. It has been determined according to EA-4/02. The measured quantity is inside the corresponding value interval with a probability of approximately 95%.

A factor for the long time stability of the calibration object is not taken into account.

5. Umgebungsbedingungen / environmental conditions

Temperatur / *Temperature*: 21,2 °C

Rel. Luftfeuchte / *Rel. humidity*: 35,7 % r.H.

Kalibrierort / *Place of calibration*: DEWETRON GmbH, Parkring 4, 8074 Grambach, Austria

6. Auftragsnummer / Reference Number

7. Status / Status

PASS ()

AS-FOUND: Eingangskalibration / *Incoming calibration*

AS-LEFT: Ausgangskalibration / *Outgoing calibration*

FOUND/LEFT: Eingangskalibration erfüllt Herstellerspezifikation / *Incoming calibration according to manufacturer specifications*

PASS: Messergebnis liegt innerhalb der Herstellerspezifikationen (ohne Berücksichtigung der Messunsicherheiten) / *Measurement result is within manufacturer's specifications (without taking into account the measurement uncertainties)*

FAIL: Das Messergebnis liegt nicht innerhalb der Herstellerspezifikationen (ohne Berücksichtigung der Messunsicherheiten) / *Measurement result is out of manufacturer's specifications (without taking into account the measurement uncertainties)*

8. Verwendete Fußnoten / Used foot notes:

(1) Zusätzliche Messwerte außerhalb des akkreditierten Bereiches, es kann keine Konformitätsaussage getroffen werden.

(1) Additional measured values outside the accredited scope, a conformity statement cannot be made.

9. Kommentare / Comments

test

Für die Festlegung und Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

The user is responsible for the definition and the compliance to a reasonable period for repeating the calibration.



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10. Verwendete Normale / Standards used

<u>Asset</u>	<u>Description</u>	<u>Serial Number</u>	<u>Certificate No.</u>	<u>Cal Date</u>	<u>Due Date</u>
5522A	5522A CALIBRATOR	2940903	N9102024	31-Okt-2024	31-Okt-2025
Keysight 3458A 05	3458A Multimeter	MY45056148	42082024	8-Aug-2024	8-Aug-2025



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11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Kalibrierverfahren / calibration method:								
CAL-KV-01_Gleichspannung_v1.0_2024-07-04.xlsx-02								
CAL-KV-01_Gleichspannung_v1.0_2024-07-04.xlsx-05								

Current Temperature of DMM and Calibrator
 DMM: 37.5°C
 Calibrator: 24.99°C

AD-Board Number: 0
 AD-Board Type: ORION-1622-101
 AD-Board serialnumber: 15470233
 AD-Board Firmwarerevision: 263

Driver Revision: 3. 0. 0. 78

System Channels 0 to 15

MDAQ-BASE Serial: 376181
 Channels 0 to 7
 MDAQ-SUB-STG Serial: 368253
 Channels 8 to 15
 MDAQ-SUB-STG Serial: 368668

Excitation Voltage Calibration

Channel 0	0.5000 V	0.500056 V	0.499050 V	0.500950 V	6.90 e-06 V	0,000056 V	5.91%	Pass
Channel 0	1.0000 V	0.999930 V	0.998800 V	1.001200 V	11.00 e-06 V	-0,000070 V	5.85%	Pass
Channel 0	2.0000 V	2.000144 V	1.998300 V	2.001700 V	21.00 e-06 V	0,000144 V	8.45%	Pass
Channel 0	3.0000 V	3.000029 V	2.997800 V	3.002200 V	29.00 e-06 V	0,000029 V	1.3%	Pass
Channel 0	5.0000 V	5.000257 V	4.996800 V	5.003200 V	46.00 e-06 V	0,000257 V	8.04%	Pass
Channel 0	8.0000 V	8.000193 V	7.995300 V	8.004700 V	71.00 e-06 V	0,000193 V	4.11%	Pass
Channel 0	10.0000 V	10.000106 V	9.994300 V	10.005700 V	87.00 e-06 V	0,000106 V	1.85%	Pass
Channel 0	12.0000 V	12.000358 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000358 V	5.34%	Pass
Channel 1	12.0000 V	12.000368 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000368 V	5.5%	Pass
Channel 2	12.0000 V	12.000232 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000232 V	3.47%	Pass
Channel 3	12.0000 V	12.000325 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000325 V	4.84%	Pass
Channel 4	12.0000 V	12.000373 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000373 V	5.57%	Pass
Channel 5	12.0000 V	12.000345 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000345 V	5.14%	Pass
Channel 6	12.0000 V	12.000336 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000336 V	5.02%	Pass
Channel 7	12.0000 V	12.000220 V	11.993300 V	12.006700 V	170.00 e-06 V	0,000220 V	3.29%	Pass
Channel 8	0.5000 V	0.499980 V	0.499050 V	0.500950 V	6.90 e-06 V	-0,000020 V	2.09%	Pass
Channel 8	1.0000 V	0.999742 V	0.998800 V	1.001200 V	11.00 e-06 V	-0,000258 V	21.5%	Pass
Channel 8	2.0000 V	2.000268 V	1.998300 V	2.001700 V	21.00 e-06 V	0,000268 V	15.8%	Pass
Channel 8	3.0000 V	2.999753 V	2.997800 V	3.002200 V	29.00 e-06 V	-0,000247 V	11.2%	Pass
Channel 8	5.0000 V	5.000343 V	4.996800 V	5.003200 V	46.00 e-06 V	0,000343 V	10.7%	Pass
Channel 8	8.0000 V	8.000503 V	7.995300 V	8.004700 V	71.00 e-06 V	0,000503 V	10.7%	Pass
Channel 8	10.0000 V	9.999777 V	9.994300 V	10.005700 V	87.00 e-06 V	-0,000223 V	3.91%	Pass
Channel 8	12.0000 V	11.999931 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000069 V	1.04%	Pass
Channel 9	12.0000 V	11.999906 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000094 V	1.4%	Pass
Channel 10	12.0000 V	11.999935 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000065 V	0.975%	Pass
Channel 11	12.0000 V	11.999924 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000076 V	1.14%	Pass
Channel 12	12.0000 V	11.999876 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000124 V	1.84%	Pass
Channel 13	12.0000 V	11.999856 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000144 V	2.16%	Pass
Channel 14	12.0000 V	11.999830 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000170 V	2.53%	Pass
Channel 15	12.0000 V	11.999794 V	11.993300 V	12.006700 V	170.00 e-06 V	-0,000206 V	3.08%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 2.5mV
 Shunt: OFF
 Filter: OFF

Channel 0	-2.40000 mV	-2.39975 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	0,00025 mV	1.46%	Pass
Channel 1	-2.40000 mV	-2.40454 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,000454 mV	26.4%	Pass
Channel 2	-2.40000 mV	-2.40107 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00107 mV	6.22%	Pass
Channel 3	-2.40000 mV	-2.40113 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00113 mV	6.57%	Pass
Channel 4	-2.40000 mV	-2.39612 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	0,00388 mV	22.6%	Pass
Channel 5	-2.40000 mV	-2.39880 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	0,00120 mV	6.98%	Pass
Channel 6	-2.40000 mV	-2.40061 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00061 mV	3.56%	Pass
Channel 7	-2.40000 mV	-2.40375 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00375 mV	21.9%	Pass
Channel 8	-2.40000 mV	-2.40116 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00116 mV	6.76%	Pass
Channel 9	-2.40000 mV	-2.40795 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00795 mV	46.3%	Pass
Channel 10	-2.40000 mV	-2.40054 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00054 mV	3.12%	Pass
Channel 11	-2.40000 mV	-2.40377 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00377 mV	22%	Pass
Channel 12	-2.40000 mV	-2.40049 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00049 mV	2.87%	Pass



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11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 13	-2.40000 mV	-2.40021 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00021 mV	1.25%	Pass
Channel 14	-2.40000 mV	-2.40332 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00332 mV	19.4%	Pass
Channel 15	-2.40000 mV	-2.40968 mV	-2.41717 mV	-2.38283 mV	3.40 e-03 mV	-0,00968 mV	56.4%	Pass
Channel 0	0.00000 mV	0.00043 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	0,00043 mV	2.83%	Pass
Channel 1	0.00000 mV	-0.00524 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00524 mV	34.4%	Pass
Channel 2	0.00000 mV	-0.00091 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00091 mV	6%	Pass
Channel 3	0.00000 mV	-0.00065 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00065 mV	4.28%	Pass
Channel 4	0.00000 mV	0.00377 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	0,00377 mV	24.7%	Pass
Channel 5	0.00000 mV	0.00118 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	0,00118 mV	7.76%	Pass
Channel 6	0.00000 mV	-0.00118 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00118 mV	7.74%	Pass
Channel 7	0.00000 mV	-0.00202 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00202 mV	13.3%	Pass
Channel 8	0.00000 mV	-0.00062 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00062 mV	4.09%	Pass
Channel 9	0.00000 mV	-0.00717 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00717 mV	47%	Pass
Channel 10	0.00000 mV	-0.00020 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00020 mV	1.34%	Pass
Channel 11	0.00000 mV	-0.00377 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00377 mV	24.7%	Pass
Channel 12	0.00000 mV	-0.00092 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00092 mV	6.02%	Pass
Channel 13	0.00000 mV	0.00000 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	0,00000 mV	0.00393%	Pass
Channel 14	0.00000 mV	-0.00439 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,00439 mV	28.8%	Pass
Channel 15	0.00000 mV	-0.01018 mV	-0.01525 mV	0.01525 mV	3.40 e-03 mV	-0,01018 mV	66.8%	Pass
Channel 0	2.40000 mV	2.39978 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00022 mV	1.27%	Pass
Channel 1	2.40000 mV	2.39415 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00585 mV	34%	Pass
Channel 2	2.40000 mV	2.39822 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00178 mV	10.4%	Pass
Channel 3	2.40000 mV	2.39855 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00145 mV	8.43%	Pass
Channel 4	2.40000 mV	2.40291 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	0,00291 mV	16.9%	Pass
Channel 5	2.40000 mV	2.40043 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	0,00043 mV	2.49%	Pass
Channel 6	2.40000 mV	2.39796 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00204 mV	11.9%	Pass
Channel 7	2.40000 mV	2.39723 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00277 mV	16.1%	Pass
Channel 8	2.40000 mV	2.39774 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00226 mV	13.2%	Pass
Channel 9	2.40000 mV	2.39207 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00793 mV	46.2%	Pass
Channel 10	2.40000 mV	2.39900 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00100 mV	5.83%	Pass
Channel 11	2.40000 mV	2.39620 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00380 mV	22.1%	Pass
Channel 12	2.40000 mV	2.39807 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00193 mV	11.3%	Pass
Channel 13	2.40000 mV	2.39862 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00138 mV	8.06%	Pass
Channel 14	2.40000 mV	2.39461 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,00539 mV	31.4%	Pass
Channel 15	2.40000 mV	2.38907 mV	2.38283 mV	2.41717 mV	3.40 e-03 mV	-0,01093 mV	63.6%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 10mV
 Shunt: OFF
 Filter: OFF

Channel 0	-9.90000 mV	-9.89816 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	0,00184 mV	7.71%	Pass
Channel 1	-9.90000 mV	-9.90456 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00456 mV	19%	Pass
Channel 2	-9.90000 mV	-9.90078 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00078 mV	3.26%	Pass
Channel 3	-9.90000 mV	-9.89977 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	0,00023 mV	0.958%	Pass
Channel 4	-9.90000 mV	-9.89475 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	0,00525 mV	21.9%	Pass
Channel 5	-9.90000 mV	-9.89748 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	0,00252 mV	10.5%	Pass
Channel 6	-9.90000 mV	-9.90038 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00038 mV	1.59%	Pass
Channel 7	-9.90000 mV	-9.90211 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00211 mV	8.84%	Pass
Channel 8	-9.90000 mV	-9.90022 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00022 mV	0.903%	Pass
Channel 9	-9.90000 mV	-9.90791 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00791 mV	33.1%	Pass
Channel 10	-9.90000 mV	-9.90013 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00013 mV	0.525%	Pass
Channel 11	-9.90000 mV	-9.90262 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00262 mV	11%	Pass
Channel 12	-9.90000 mV	-9.89965 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	0,00035 mV	1.46%	Pass
Channel 13	-9.90000 mV	-9.89948 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	0,00052 mV	2.17%	Pass
Channel 14	-9.90000 mV	-9.90314 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00314 mV	13.1%	Pass
Channel 15	-9.90000 mV	-9.90918 mV	-9.92392 mV	-9.87608 mV	3.50 e-03 mV	-0,00918 mV	38.4%	Pass
Channel 0	0.00000 mV	-0.00008 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00008 mV	0.512%	Pass
Channel 1	0.00000 mV	-0.00492 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00492 mV	30.7%	Pass
Channel 2	0.00000 mV	-0.00088 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00088 mV	5.53%	Pass
Channel 3	0.00000 mV	-0.00098 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00098 mV	6.13%	Pass
Channel 4	0.00000 mV	0.00383 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	0,00383 mV	23.9%	Pass
Channel 5	0.00000 mV	0.00126 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	0,00126 mV	7.9%	Pass
Channel 6	0.00000 mV	-0.00151 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00151 mV	9.47%	Pass
Channel 7	0.00000 mV	-0.00209 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00209 mV	13.1%	Pass
Channel 8	0.00000 mV	-0.00155 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00155 mV	9.66%	Pass
Channel 9	0.00000 mV	-0.00790 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00790 mV	49.3%	Pass
Channel 10	0.00000 mV	-0.00087 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00087 mV	5.45%	Pass
Channel 11	0.00000 mV	-0.00379 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00379 mV	23.7%	Pass
Channel 12	0.00000 mV	-0.00168 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00168 mV	10.5%	Pass
Channel 13	0.00000 mV	-0.00101 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00101 mV	6.28%	Pass
Channel 14	0.00000 mV	-0.00481 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,00481 mV	30%	Pass
Channel 15	0.00000 mV	-0.01054 mV	-0.01600 mV	0.01600 mV	3.40 e-03 mV	-0,01054 mV	65.9%	Pass
Channel 0	9.90000 mV	9.89779 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00221 mV	9.24%	Pass
Channel 1	9.90000 mV	9.89326 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00674 mV	28.2%	Pass
Channel 2	9.90000 mV	9.89776 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00224 mV	9.36%	Pass
Channel 3	9.90000 mV	9.89791 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00209 mV	8.72%	Pass
Channel 4	9.90000 mV	9.90243 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	0,00243 mV	10.1%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 5	9.90000 mV	9.89900 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00100 mV	4.17%	Pass
Channel 6	9.90000 mV	9.89672 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00328 mV	13.7%	Pass
Channel 7	9.90000 mV	9.89680 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00320 mV	13.4%	Pass
Channel 8	9.90000 mV	9.89632 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00368 mV	15.4%	Pass
Channel 9	9.90000 mV	9.89131 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00869 mV	36.3%	Pass
Channel 10	9.90000 mV	9.89798 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00202 mV	8.45%	Pass
Channel 11	9.90000 mV	9.89480 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00520 mV	21.7%	Pass
Channel 12	9.90000 mV	9.89663 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00337 mV	14.1%	Pass
Channel 13	9.90000 mV	9.89740 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00260 mV	10.9%	Pass
Channel 14	9.90000 mV	9.89391 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,00609 mV	25.5%	Pass
Channel 15	9.90000 mV	9.88801 mV	9.87608 mV	9.92392 mV	3.50 e-03 mV	-0,01199 mV	50.1%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 0.1V
 Shunt: OFF
 Filter: OFF

Channel 0	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	17%	Pass
Channel 1	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	8.52%	Pass
Channel 2	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	18.1%	Pass
Channel 3	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	8.13%	Pass
Channel 4	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	15.5%	Pass
Channel 5	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	16%	Pass
Channel 6	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	11.8%	Pass
Channel 7	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	8.18%	Pass
Channel 8	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	14.7%	Pass
Channel 9	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	9.28%	Pass
Channel 10	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	12.2%	Pass
Channel 11	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	12.6%	Pass
Channel 12	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	16.5%	Pass
Channel 13	-0.09900 V	-0.09898 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00002 V	16%	Pass
Channel 14	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	4.99%	Pass
Channel 15	-0.09900 V	-0.09899 V	-0.09912 V	-0.09888 V	4.60 e-06 V	0,00001 V	10.7%	Pass
Channel 0	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	12.6%	Pass
Channel 1	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	2.73%	Pass
Channel 2	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	11.9%	Pass
Channel 3	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	1.17%	Pass
Channel 4	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	11.8%	Pass
Channel 5	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	9.52%	Pass
Channel 6	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	5.82%	Pass
Channel 7	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	1.37%	Pass
Channel 8	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	6.28%	Pass
Channel 9	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	0.642%	Pass
Channel 10	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	5.57%	Pass
Channel 11	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	7.18%	Pass
Channel 12	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	8.86%	Pass
Channel 13	-0.05000 V	-0.04999 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00001 V	9.82%	Pass
Channel 14	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	0.993%	Pass
Channel 15	-0.05000 V	-0.05000 V	-0.05008 V	-0.04992 V	3.80 e-06 V	0,00000 V	0.739%	Pass
Channel 0	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	2.02%	Pass
Channel 1	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	15.4%	Pass
Channel 2	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	3.74%	Pass
Channel 3	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	17.6%	Pass
Channel 4	0.00000 V	0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	3.63%	Pass
Channel 5	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	8.3%	Pass
Channel 6	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	8.95%	Pass
Channel 7	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	15.1%	Pass
Channel 8	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	17.7%	Pass
Channel 9	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	24.6%	Pass
Channel 10	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	11%	Pass
Channel 11	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	8.47%	Pass
Channel 12	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	11.4%	Pass
Channel 13	0.00000 V	-0.00000 V	-0.00004 V	0.00004 V	3.40 e-06 V	0,00000 V	7.09%	Pass
Channel 14	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	19%	Pass
Channel 15	0.00000 V	-0.00001 V	-0.00004 V	0.00004 V	3.40 e-06 V	-0,00001 V	27.6%	Pass
Channel 0	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	13.9%	Pass
Channel 1	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	17.3%	Pass
Channel 2	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	16.7%	Pass
Channel 3	0.05000 V	0.04998 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00002 V	20%	Pass
Channel 4	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	8.81%	Pass
Channel 5	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	17.2%	Pass
Channel 6	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	14.8%	Pass
Channel 7	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	17%	Pass
Channel 8	0.05000 V	0.04998 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00002 V	23.8%	Pass
Channel 9	0.05000 V	0.04998 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00002 V	25.3%	Pass
Channel 10	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	17.7%	Pass
Channel 11	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	15.8%	Pass
Channel 12	0.05000 V	0.04998 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00002 V	19.4%	Pass



DEWETRON GmbH
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 8074 Grambach
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 13	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	17.8%	Pass
Channel 14	0.05000 V	0.04999 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00001 V	17.3%	Pass
Channel 15	0.05000 V	0.04998 V	0.04992 V	0.05008 V	3.80 e-06 V	-0,00002 V	29.3%	Pass
Channel 0	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	17.9%	Pass
Channel 1	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	17.8%	Pass
Channel 2	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	19.4%	Pass
Channel 3	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	20.1%	Pass
Channel 4	0.09900 V	0.09899 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00001 V	12.1%	Pass
Channel 5	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	20.6%	Pass
Channel 6	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	17%	Pass
Channel 7	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	18.3%	Pass
Channel 8	0.09900 V	0.09897 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00003 V	25.4%	Pass
Channel 9	0.09900 V	0.09897 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00003 V	25.9%	Pass
Channel 10	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	19.2%	Pass
Channel 11	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	18.1%	Pass
Channel 12	0.09900 V	0.09897 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00003 V	22.2%	Pass
Channel 13	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	21%	Pass
Channel 14	0.09900 V	0.09898 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00002 V	16.2%	Pass
Channel 15	0.09900 V	0.09896 V	0.09888 V	0.09912 V	4.60 e-06 V	-0,00004 V	29.4%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 1V
 Shunt: OFF
 Filter: OFF

Channel 0	-0.99000 V	-0.98985 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00015 V	11.5%	Pass
Channel 1	-0.99000 V	-0.98990 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00010 V	7.46%	Pass
Channel 2	-0.99000 V	-0.98986 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00014 V	11.2%	Pass
Channel 3	-0.99000 V	-0.98990 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00010 V	7.98%	Pass
Channel 4	-0.99000 V	-0.98987 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00013 V	10.4%	Pass
Channel 5	-0.99000 V	-0.98984 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00016 V	12.6%	Pass
Channel 6	-0.99000 V	-0.98985 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00015 V	11.3%	Pass
Channel 7	-0.99000 V	-0.98990 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00010 V	7.5%	Pass
Channel 8	-0.99000 V	-0.98985 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00015 V	11.8%	Pass
Channel 9	-0.99000 V	-0.98990 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00010 V	7.81%	Pass
Channel 10	-0.99000 V	-0.98998 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00002 V	1.76%	Pass
Channel 11	-0.99000 V	-0.98996 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00004 V	2.92%	Pass
Channel 12	-0.99000 V	-0.98993 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00007 V	5.06%	Pass
Channel 13	-0.99000 V	-0.98993 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00007 V	5.2%	Pass
Channel 14	-0.99000 V	-0.98998 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00002 V	1.67%	Pass
Channel 15	-0.99000 V	-0.98998 V	-0.99129 V	-0.98871 V	24.00 e-06 V	0,00002 V	1.87%	Pass
Channel 0	0.00000 V	-0.00002 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00002 V	3.65%	Pass
Channel 1	0.00000 V	-0.00001 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00001 V	1.85%	Pass
Channel 2	0.00000 V	0.00001 V	-0.00050 V	0.00050 V	18.00 e-06 V	0,00001 V	1.45%	Pass
Channel 3	0.00000 V	-0.00004 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00004 V	8.38%	Pass
Channel 4	0.00000 V	-0.00002 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00002 V	4.74%	Pass
Channel 5	0.00000 V	-0.00003 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00003 V	6.13%	Pass
Channel 6	0.00000 V	-0.00002 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00002 V	3.6%	Pass
Channel 7	0.00000 V	-0.00001 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00001 V	2.43%	Pass
Channel 8	0.00000 V	-0.00004 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00004 V	8.5%	Pass
Channel 9	0.00000 V	-0.00001 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00001 V	2.58%	Pass
Channel 10	0.00000 V	-0.00011 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00011 V	21.1%	Pass
Channel 11	0.00000 V	-0.00011 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00011 V	21.7%	Pass
Channel 12	0.00000 V	-0.00013 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00013 V	25.8%	Pass
Channel 13	0.00000 V	-0.00011 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00011 V	22.2%	Pass
Channel 14	0.00000 V	-0.00012 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00012 V	24.5%	Pass
Channel 15	0.00000 V	-0.00011 V	-0.00050 V	0.00050 V	18.00 e-06 V	-0,00011 V	22.4%	Pass
Channel 0	0.99000 V	0.98982 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00018 V	14.2%	Pass
Channel 1	0.99000 V	0.98988 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00012 V	9.29%	Pass
Channel 2	0.99000 V	0.98987 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00013 V	10.4%	Pass
Channel 3	0.99000 V	0.98980 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00020 V	15.4%	Pass
Channel 4	0.99000 V	0.98981 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00019 V	14.7%	Pass
Channel 5	0.99000 V	0.98976 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00024 V	18.4%	Pass
Channel 6	0.99000 V	0.98982 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00018 V	13.8%	Pass
Channel 7	0.99000 V	0.98987 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00013 V	9.68%	Pass
Channel 8	0.99000 V	0.98976 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00024 V	18.3%	Pass
Channel 9	0.99000 V	0.98986 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00014 V	10.5%	Pass
Channel 10	0.99000 V	0.98977 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00023 V	17.8%	Pass
Channel 11	0.99000 V	0.98975 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00025 V	19.6%	Pass
Channel 12	0.99000 V	0.98967 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00033 V	25.6%	Pass
Channel 13	0.99000 V	0.98971 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00029 V	22.5%	Pass
Channel 14	0.99000 V	0.98973 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00027 V	20.7%	Pass
Channel 15	0.99000 V	0.98975 V	0.98871 V	0.99129 V	24.00 e-06 V	-0,00025 V	19.5%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 1.25V



DEWETRON GmbH
 Parking 4
 8074 Grambach
 AUSTRIA

Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Shunt: OFF								
Filter: OFF								
Channel 0	-1.20000 V	-1.19987 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00013 V	6.25%	Pass
Channel 1	-1.20000 V	-1.19982 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00018 V	8.49%	Pass
Channel 2	-1.20000 V	-1.19960 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00040 V	19%	Pass
Channel 3	-1.20000 V	-1.19970 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00030 V	14.4%	Pass
Channel 4	-1.20000 V	-1.19970 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00030 V	14.4%	Pass
Channel 5	-1.20000 V	-1.19969 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00031 V	14.9%	Pass
Channel 6	-1.20000 V	-1.19975 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00025 V	12.2%	Pass
Channel 7	-1.20000 V	-1.19976 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00024 V	11.7%	Pass
Channel 8	-1.20000 V	-1.19990 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00010 V	4.59%	Pass
Channel 9	-1.20000 V	-1.19985 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00015 V	7.38%	Pass
Channel 10	-1.20000 V	-1.19976 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00024 V	11.4%	Pass
Channel 11	-1.20000 V	-1.19965 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00035 V	16.8%	Pass
Channel 12	-1.20000 V	-1.19980 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00020 V	9.67%	Pass
Channel 13	-1.20000 V	-1.19981 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00019 V	9.31%	Pass
Channel 14	-1.20000 V	-1.19996 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00004 V	1.84%	Pass
Channel 15	-1.20000 V	-1.19973 V	-1.20208 V	-1.19792 V	30.00 e-06 V	0,00027 V	12.9%	Pass
Channel 0	0.00000 V	-0.00005 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00005 V	4.12%	Pass
Channel 1	0.00000 V	-0.00007 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00007 V	6.01%	Pass
Channel 2	0.00000 V	-0.00003 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00003 V	3.09%	Pass
Channel 3	0.00000 V	-0.00015 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00015 V	13.1%	Pass
Channel 4	0.00000 V	-0.00007 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00007 V	6.56%	Pass
Channel 5	0.00000 V	-0.00015 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00015 V	13.3%	Pass
Channel 6	0.00000 V	-0.00011 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00011 V	9.48%	Pass
Channel 7	0.00000 V	-0.00007 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00007 V	6.5%	Pass
Channel 8	0.00000 V	-0.00027 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00027 V	24%	Pass
Channel 9	0.00000 V	-0.00011 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00011 V	9.91%	Pass
Channel 10	0.00000 V	-0.00006 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00006 V	5.54%	Pass
Channel 11	0.00000 V	-0.00002 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00002 V	2%	Pass
Channel 12	0.00000 V	-0.00025 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00025 V	22%	Pass
Channel 13	0.00000 V	-0.00009 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00009 V	8.33%	Pass
Channel 14	0.00000 V	-0.00017 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00017 V	15.4%	Pass
Channel 15	0.00000 V	-0.00010 V	-0.00113 V	0.00113 V	22.00 e-06 V	-0,00010 V	8.47%	Pass
Channel 0	1.20000 V	1.19977 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00023 V	11.3%	Pass
Channel 1	1.20000 V	1.19968 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00032 V	15.3%	Pass
Channel 2	1.20000 V	1.19957 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00043 V	20.5%	Pass
Channel 3	1.20000 V	1.19941 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00059 V	28.2%	Pass
Channel 4	1.20000 V	1.19955 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00045 V	21.4%	Pass
Channel 5	1.20000 V	1.19939 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00061 V	29.3%	Pass
Channel 6	1.20000 V	1.19958 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00042 V	20.4%	Pass
Channel 7	1.20000 V	1.19959 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00041 V	19.8%	Pass
Channel 8	1.20000 V	1.19940 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00060 V	29%	Pass
Channel 9	1.20000 V	1.19963 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00037 V	17.8%	Pass
Channel 10	1.20000 V	1.19966 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00034 V	16.1%	Pass
Channel 11	1.20000 V	1.19960 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00040 V	19%	Pass
Channel 12	1.20000 V	1.19930 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00070 V	33.5%	Pass
Channel 13	1.20000 V	1.19965 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00035 V	16.9%	Pass
Channel 14	1.20000 V	1.19967 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00033 V	16%	Pass
Channel 15	1.20000 V	1.19956 V	1.19792 V	1.20208 V	30.00 e-06 V	-0,00044 V	21.2%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100ks/s
 Mode: Voltage
 Range: 2.5V
 Shunt: OFF
 Filter: OFF

Channel 0	-2.40000 V	-2.39966 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00034 V	10.6%	Pass
Channel 1	-2.40000 V	-2.39978 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00022 V	6.9%	Pass
Channel 2	-2.40000 V	-2.39945 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00055 V	17.3%	Pass
Channel 3	-2.40000 V	-2.39961 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00039 V	12.3%	Pass
Channel 4	-2.40000 V	-2.39960 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00040 V	12.6%	Pass
Channel 5	-2.40000 V	-2.39974 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00026 V	8.16%	Pass
Channel 6	-2.40000 V	-2.39956 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00044 V	14%	Pass
Channel 7	-2.40000 V	-2.39966 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00034 V	10.7%	Pass
Channel 8	-2.40000 V	-2.39958 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00042 V	13.3%	Pass
Channel 9	-2.40000 V	-2.39965 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00035 V	11%	Pass
Channel 10	-2.40000 V	-2.39965 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00035 V	11%	Pass
Channel 11	-2.40000 V	-2.39955 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00045 V	14.2%	Pass
Channel 12	-2.40000 V	-2.39956 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00044 V	13.8%	Pass
Channel 13	-2.40000 V	-2.39968 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00032 V	9.99%	Pass
Channel 14	-2.40000 V	-2.39983 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00017 V	5.34%	Pass
Channel 15	-2.40000 V	-2.39959 V	-2.40317 V	-2.39683 V	57.00 e-06 V	0,00041 V	13%	Pass
Channel 0	0.00000 V	-0.00005 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00005 V	3.94%	Pass
Channel 1	0.00000 V	-0.00019 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00019 V	14.9%	Pass
Channel 2	0.00000 V	-0.00009 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00009 V	7.08%	Pass
Channel 3	0.00000 V	-0.00028 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00028 V	22.5%	Pass
Channel 4	0.00000 V	-0.00005 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00005 V	4.14%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
 AUSTRIA

Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 5	0.00000 V	-0.00023 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00023 V	18.6%	Pass
Channel 6	0.00000 V	-0.00012 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00012 V	9.96%	Pass
Channel 7	0.00000 V	-0.00017 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00017 V	13.7%	Pass
Channel 8	0.00000 V	-0.00015 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00015 V	12.2%	Pass
Channel 9	0.00000 V	-0.00015 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00015 V	12.1%	Pass
Channel 10	0.00000 V	-0.00015 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00015 V	11.9%	Pass
Channel 11	0.00000 V	-0.00015 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00015 V	12.2%	Pass
Channel 12	0.00000 V	-0.00030 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00030 V	24.1%	Pass
Channel 13	0.00000 V	-0.00019 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00019 V	15.2%	Pass
Channel 14	0.00000 V	-0.00020 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00020 V	16%	Pass
Channel 15	0.00000 V	-0.00013 V	-0.00125 V	0.00125 V	44.00 e-06 V	-0,00013 V	10.7%	Pass
Channel 0	2.40000 V	2.39953 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00047 V	14.8%	Pass
Channel 1	2.40000 V	2.39937 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00063 V	19.8%	Pass
Channel 2	2.40000 V	2.39931 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00069 V	21.8%	Pass
Channel 3	2.40000 V	2.39906 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00094 V	29.7%	Pass
Channel 4	2.40000 V	2.39950 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00050 V	15.9%	Pass
Channel 5	2.40000 V	2.39929 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00071 V	22.4%	Pass
Channel 6	2.40000 V	2.39935 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00065 V	20.6%	Pass
Channel 7	2.40000 V	2.39931 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00069 V	21.8%	Pass
Channel 8	2.40000 V	2.39926 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00074 V	23.4%	Pass
Channel 9	2.40000 V	2.39933 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00067 V	21.2%	Pass
Channel 10	2.40000 V	2.39938 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00062 V	19.6%	Pass
Channel 11	2.40000 V	2.39930 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00070 V	22.2%	Pass
Channel 12	2.40000 V	2.39897 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00103 V	32.4%	Pass
Channel 13	2.40000 V	2.39930 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00070 V	22%	Pass
Channel 14	2.40000 V	2.39944 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00056 V	17.6%	Pass
Channel 15	2.40000 V	2.39932 V	2.39683 V	2.40317 V	57.00 e-06 V	-0,00068 V	21.6%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 5V
 Shunt: OFF
 Filter: OFF

Channel 0	-4.90000 V	-4.89902 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00098 V	18.1%	Pass
Channel 1	-4.90000 V	-4.89941 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00059 V	10.9%	Pass
Channel 2	-4.90000 V	-4.89884 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00116 V	21.5%	Pass
Channel 3	-4.90000 V	-4.89926 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00074 V	13.7%	Pass
Channel 4	-4.90000 V	-4.89912 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00088 V	16.1%	Pass
Channel 5	-4.90000 V	-4.89932 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00068 V	12.5%	Pass
Channel 6	-4.90000 V	-4.89913 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00087 V	16.1%	Pass
Channel 7	-4.90000 V	-4.89944 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00056 V	10.3%	Pass
Channel 8	-4.90000 V	-4.89913 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00087 V	16.1%	Pass
Channel 9	-4.90000 V	-4.89911 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00089 V	16.3%	Pass
Channel 10	-4.90000 V	-4.89909 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00091 V	16.8%	Pass
Channel 11	-4.90000 V	-4.89923 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00077 V	14.2%	Pass
Channel 12	-4.90000 V	-4.89911 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00089 V	16.3%	Pass
Channel 13	-4.90000 V	-4.89923 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00077 V	14.1%	Pass
Channel 14	-4.90000 V	-4.89949 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00051 V	9.37%	Pass
Channel 15	-4.90000 V	-4.89923 V	-4.90543 V	-4.89457 V	140.00 e-06 V	0,00077 V	14.2%	Pass
Channel 0	-2.50000 V	-2.49948 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00052 V	14%	Pass
Channel 1	-2.50000 V	-2.49977 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00023 V	6.11%	Pass
Channel 2	-2.50000 V	-2.49942 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00058 V	15.5%	Pass
Channel 3	-2.50000 V	-2.49978 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00022 V	5.98%	Pass
Channel 4	-2.50000 V	-2.49957 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00043 V	11.4%	Pass
Channel 5	-2.50000 V	-2.49979 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00021 V	5.72%	Pass
Channel 6	-2.50000 V	-2.49965 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00035 V	9.3%	Pass
Channel 7	-2.50000 V	-2.49978 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00022 V	5.74%	Pass
Channel 8	-2.50000 V	-2.49966 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00034 V	9.17%	Pass
Channel 9	-2.50000 V	-2.49967 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00033 V	8.8%	Pass
Channel 10	-2.50000 V	-2.49961 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00039 V	10.4%	Pass
Channel 11	-2.50000 V	-2.49965 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00035 V	9.37%	Pass
Channel 12	-2.50000 V	-2.49965 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00035 V	9.27%	Pass
Channel 13	-2.50000 V	-2.49970 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00030 V	8.1%	Pass
Channel 14	-2.50000 V	-2.49989 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00011 V	2.98%	Pass
Channel 15	-2.50000 V	-2.49969 V	-2.50375 V	-2.49625 V	96.00 e-06 V	0,00031 V	8.24%	Pass
Channel 0	0.00000 V	0.00004 V	-0.00200 V	0.00200 V	88.00 e-06 V	0,00004 V	1.75%	Pass
Channel 1	0.00000 V	-0.00022 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00022 V	11.1%	Pass
Channel 2	0.00000 V	-0.00004 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00004 V	2.19%	Pass
Channel 3	0.00000 V	-0.00034 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00034 V	16.9%	Pass
Channel 4	0.00000 V	-0.00005 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00005 V	2.67%	Pass
Channel 5	0.00000 V	-0.00030 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00030 V	15%	Pass
Channel 6	0.00000 V	-0.00020 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00020 V	9.91%	Pass
Channel 7	0.00000 V	-0.00017 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00017 V	8.36%	Pass
Channel 8	0.00000 V	-0.00026 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00026 V	12.8%	Pass
Channel 9	0.00000 V	-0.00026 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00026 V	13.2%	Pass
Channel 10	0.00000 V	-0.00014 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00014 V	6.79%	Pass
Channel 11	0.00000 V	-0.00012 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00012 V	5.81%	Pass
Channel 12	0.00000 V	-0.00026 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00026 V	13.1%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
 AUSTRIA

Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 13	0.00000 V	-0.00020 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00020 V	9.77%	Pass
Channel 14	0.00000 V	-0.00030 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00030 V	15.1%	Pass
Channel 15	0.00000 V	-0.00020 V	-0.00200 V	0.00200 V	88.00 e-06 V	-0,00020 V	10.2%	Pass
Channel 0	2.50000 V	2.49955 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00045 V	11.9%	Pass
Channel 1	2.50000 V	2.49937 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00063 V	16.8%	Pass
Channel 2	2.50000 V	2.49937 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00063 V	16.9%	Pass
Channel 3	2.50000 V	2.49911 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00089 V	23.6%	Pass
Channel 4	2.50000 V	2.49947 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00053 V	14.3%	Pass
Channel 5	2.50000 V	2.49917 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00083 V	22.2%	Pass
Channel 6	2.50000 V	2.49929 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00071 V	18.9%	Pass
Channel 7	2.50000 V	2.49945 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00055 V	14.5%	Pass
Channel 8	2.50000 V	2.49919 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00081 V	21.5%	Pass
Channel 9	2.50000 V	2.49909 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00091 V	24.3%	Pass
Channel 10	2.50000 V	2.49936 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00064 V	17.2%	Pass
Channel 11	2.50000 V	2.49941 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00059 V	15.8%	Pass
Channel 12	2.50000 V	2.49917 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00083 V	22.1%	Pass
Channel 13	2.50000 V	2.49931 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00069 V	18.4%	Pass
Channel 14	2.50000 V	2.49932 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00068 V	18.1%	Pass
Channel 15	2.50000 V	2.49930 V	2.49625 V	2.50375 V	96.00 e-06 V	-0,00070 V	18.7%	Pass
Channel 0	4.90000 V	4.89905 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00095 V	17.5%	Pass
Channel 1	4.90000 V	4.89896 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00104 V	19.1%	Pass
Channel 2	4.90000 V	4.89881 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00119 V	22%	Pass
Channel 3	4.90000 V	4.89859 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00141 V	26%	Pass
Channel 4	4.90000 V	4.89902 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00098 V	18.1%	Pass
Channel 5	4.90000 V	4.89866 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00134 V	24.6%	Pass
Channel 6	4.90000 V	4.89881 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00119 V	21.9%	Pass
Channel 7	4.90000 V	4.89911 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00089 V	16.4%	Pass
Channel 8	4.90000 V	4.89867 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00133 V	24.6%	Pass
Channel 9	4.90000 V	4.89848 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00152 V	28%	Pass
Channel 10	4.90000 V	4.89889 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00111 V	20.5%	Pass
Channel 11	4.90000 V	4.89897 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00103 V	19%	Pass
Channel 12	4.90000 V	4.89865 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00135 V	24.9%	Pass
Channel 13	4.90000 V	4.89884 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00116 V	21.5%	Pass
Channel 14	4.90000 V	4.89895 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00105 V	19.3%	Pass
Channel 15	4.90000 V	4.89882 V	4.89457 V	4.90543 V	140.00 e-06 V	-0,00118 V	21.8%	Pass

MDAQ-Settings for the following tests:
 Samplerate: 100kS/s
 Mode: Voltage
 Range: 10V
 Shunt: OFF
 Filter: OFF

Channel 0	-9.90000 V	-9.89806 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00194 V	17.7%	Pass
Channel 1	-9.90000 V	-9.89903 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00097 V	8.91%	Pass
Channel 2	-9.90000 V	-9.89796 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00204 V	18.6%	Pass
Channel 3	-9.90000 V	-9.89850 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00150 V	13.7%	Pass
Channel 4	-9.90000 V	-9.89824 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00176 V	16.1%	Pass
Channel 5	-9.90000 V	-9.89842 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00158 V	14.4%	Pass
Channel 6	-9.90000 V	-9.89836 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00164 V	15%	Pass
Channel 7	-9.90000 V	-9.89844 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00156 V	14.3%	Pass
Channel 8	-9.90000 V	-9.89797 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00203 V	18.5%	Pass
Channel 9	-9.90000 V	-9.89810 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00190 V	17.3%	Pass
Channel 10	-9.90000 V	-9.89820 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00180 V	16.5%	Pass
Channel 11	-9.90000 V	-9.89824 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00176 V	16.1%	Pass
Channel 12	-9.90000 V	-9.89801 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00199 V	18.2%	Pass
Channel 13	-9.90000 V	-9.89839 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00161 V	14.7%	Pass
Channel 14	-9.90000 V	-9.89866 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00134 V	12.3%	Pass
Channel 15	-9.90000 V	-9.89831 V	-9.91093 V	-9.88907 V	260.00 e-06 V	0,00169 V	15.4%	Pass
Channel 0	0.00000 V	0.00006 V	-0.00400 V	0.00400 V	180.00 e-06 V	0,00006 V	1.53%	Pass
Channel 1	0.00000 V	-0.00024 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00024 V	6.11%	Pass
Channel 2	0.00000 V	-0.00009 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00009 V	2.31%	Pass
Channel 3	0.00000 V	-0.00041 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00041 V	10.3%	Pass
Channel 4	0.00000 V	-0.00005 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00005 V	1.26%	Pass
Channel 5	0.00000 V	-0.00027 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00027 V	6.66%	Pass
Channel 6	0.00000 V	-0.00034 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00034 V	8.54%	Pass
Channel 7	0.00000 V	-0.00011 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00011 V	2.63%	Pass
Channel 8	0.00000 V	-0.00026 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00026 V	6.62%	Pass
Channel 9	0.00000 V	-0.00018 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00018 V	4.41%	Pass
Channel 10	0.00000 V	-0.00032 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00032 V	8.03%	Pass
Channel 11	0.00000 V	0.00005 V	-0.00400 V	0.00400 V	180.00 e-06 V	0,00005 V	1.13%	Pass
Channel 12	0.00000 V	-0.00030 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00030 V	7.51%	Pass
Channel 13	0.00000 V	-0.00010 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00010 V	2.52%	Pass
Channel 14	0.00000 V	-0.00029 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00029 V	7.32%	Pass
Channel 15	0.00000 V	-0.00006 V	-0.00400 V	0.00400 V	180.00 e-06 V	-0,00006 V	1.57%	Pass
Channel 0	9.90000 V	9.89814 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00186 V	17%	Pass
Channel 1	9.90000 V	9.89853 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00147 V	13.4%	Pass
Channel 2	9.90000 V	9.89786 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00214 V	19.5%	Pass
Channel 3	9.90000 V	9.89767 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00233 V	21.4%	Pass
Channel 4	9.90000 V	9.89822 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00178 V	16.3%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
 AUSTRIA

Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 5	9.90000 V	9.89784 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00216 V	19.8%	Pass
Channel 6	9.90000 V	9.89780 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00220 V	20.2%	Pass
Channel 7	9.90000 V	9.89825 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00175 V	16%	Pass
Channel 8	9.90000 V	9.89757 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00243 V	22.2%	Pass
Channel 9	9.90000 V	9.89767 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00233 V	21.3%	Pass
Channel 10	9.90000 V	9.89771 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00229 V	21%	Pass
Channel 11	9.90000 V	9.89834 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00166 V	15.2%	Pass
Channel 12	9.90000 V	9.89756 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00244 V	22.3%	Pass
Channel 13	9.90000 V	9.89813 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00187 V	17.1%	Pass
Channel 14	9.90000 V	9.89822 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00178 V	16.3%	Pass
Channel 15	9.90000 V	9.89819 V	9.88907 V	9.91093 V	260.00 e-06 V	-0,00181 V	16.6%	Pass

Half-Bridge Tests

Half Bridge Completion: Channel 0	Pass	(1)
Half Bridge Completion: Channel 1	Pass	(1)
Half Bridge Completion: Channel 2	Pass	(1)
Half Bridge Completion: Channel 3	Pass	(1)
Half Bridge Completion: Channel 4	Pass	(1)
Half Bridge Completion: Channel 5	Pass	(1)
Half Bridge Completion: Channel 6	Pass	(1)
Half Bridge Completion: Channel 7	Pass	(1)
Half Bridge Completion: Channel 8	Pass	(1)
Half Bridge Completion: Channel 9	Pass	(1)
Half Bridge Completion: Channel 10	Pass	(1)
Half Bridge Completion: Channel 11	Pass	(1)
Half Bridge Completion: Channel 12	Pass	(1)
Half Bridge Completion: Channel 13	Pass	(1)
Half Bridge Completion: Channel 14	Pass	(1)
Half Bridge Completion: Channel 15	Pass	(1)

Quarter-Bridge Tests
 Quarter-Bridge Supply Check

350 Ohm Quarter Bridge Supply: Channel 0	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 0	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 1	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 1	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 2	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 2	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 3	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 3	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 4	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 4	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 5	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 5	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 6	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 6	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 7	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 7	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 8	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 8	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 9	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 9	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 10	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 10	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 11	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 11	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 12	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 12	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 13	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 13	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 14	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 14	Pass	(1)
350 Ohm Quarter Bridge Supply: Channel 15	Pass	(1)
120 Ohm Quarter Bridge Supply: Channel 15	Pass	(1)

Quarter-Bridge-Completion Check

120 Ohm Quarter Bridge Completion: Channel 0	Pass	(1)
350 Ohm Quarter Bridge Completion: Channel 0	Pass	(1)
120 Ohm Quarter Bridge Completion: Channel 1	Pass	(1)
350 Ohm Quarter Bridge Completion: Channel 1	Pass	(1)
120 Ohm Quarter Bridge Completion: Channel 2	Pass	(1)
350 Ohm Quarter Bridge Completion: Channel 2	Pass	(1)
120 Ohm Quarter Bridge Completion: Channel 3	Pass	(1)
350 Ohm Quarter Bridge Completion: Channel 3	Pass	(1)
120 Ohm Quarter Bridge Completion: Channel 4	Pass	(1)
350 Ohm Quarter Bridge Completion: Channel 4	Pass	(1)
120 Ohm Quarter Bridge Completion: Channel 5	Pass	(1)



DEWETRON GmbH
Parking 4
8074 Grambach
AUSTRIA

Kalibrierschein nach ISO/IEC 17025
Calibration Certificate according to ISO/IEC 17025

AAT2540130
Akkreditierung Austria 0632
18.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
350 Ohm Quarter Bridge Completion: Channel 5								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 6								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 6								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 7								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 7								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 8								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 8								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 9								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 9								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 10								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 10								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 11								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 11								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 12								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 12								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 13								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 13								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 14								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 14								Pass (1)
120 Ohm Quarter Bridge Completion: Channel 15								Pass (1)
350 Ohm Quarter Bridge Completion: Channel 15								Pass (1)
Shunt Tests								
100 kOhm & 50 kOhm								
100 kOhm Shunt: Channel 0								Pass (1)
50 kOhm Shunt: Channel 0								Pass (1)
100 kOhm Shunt: Channel 1								Pass (1)
50 kOhm Shunt: Channel 1								Pass (1)
100 kOhm Shunt: Channel 2								Pass (1)
50 kOhm Shunt: Channel 2								Pass (1)
100 kOhm Shunt: Channel 3								Pass (1)
50 kOhm Shunt: Channel 3								Pass (1)
100 kOhm Shunt: Channel 4								Pass (1)
50 kOhm Shunt: Channel 4								Pass (1)
100 kOhm Shunt: Channel 5								Pass (1)
50 kOhm Shunt: Channel 5								Pass (1)
100 kOhm Shunt: Channel 6								Pass (1)
50 kOhm Shunt: Channel 6								Pass (1)
100 kOhm Shunt: Channel 7								Pass (1)
50 kOhm Shunt: Channel 7								Pass (1)
100 kOhm Shunt: Channel 8								Pass (1)
50 kOhm Shunt: Channel 8								Pass (1)
100 kOhm Shunt: Channel 9								Pass (1)
50 kOhm Shunt: Channel 9								Pass (1)
100 kOhm Shunt: Channel 10								Pass (1)
50 kOhm Shunt: Channel 10								Pass (1)
100 kOhm Shunt: Channel 11								Pass (1)
50 kOhm Shunt: Channel 11								Pass (1)
100 kOhm Shunt: Channel 12								Pass (1)
50 kOhm Shunt: Channel 12								Pass (1)
100 kOhm Shunt: Channel 13								Pass (1)
50 kOhm Shunt: Channel 13								Pass (1)
100 kOhm Shunt: Channel 14								Pass (1)
50 kOhm Shunt: Channel 14								Pass (1)
100 kOhm Shunt: Channel 15								Pass (1)
50 kOhm Shunt: Channel 15								Pass (1)

Ende des Kalibrierscheines / End of Calibration Certificate

